



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,828	12/12/2003	Roland Deckwer	09879-00039-US 02-100	5323
23416 7590 08/13/2009 CONNOLLY BOVE LODGE & HUTZ, LLP P O BOX 2207 WILMINGTON, DE 19899				
EXAMINER				
PRYOR, ALTON NATHANIEL				
ART UNIT		PAPER NUMBER		
1616				
MAIL DATE		DELIVERY MODE		
08/13/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/734,828

**Applicant(s)**

DECKWER ET AL.

**Examiner**

ALTON N. PRYOR

**Art Unit**

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicant's arguments filed 4/24/09 have been fully considered but they are not persuasive. See argument below. Previous rejections/issues not addressed below are withdrawn.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for an invention comprising foramsulfuron or iodosulfuron as the sulfonamide herbicide plus Triton GT-7ME as the sulfosuccinate plus rheological additives and dispersants/emulsifiers. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. The state of the art is that Schnabel et al (US 6,693,063) teach emulsifiable concentrates (column 10) comprising ALS inhibitors such as sulfonylurea herbicides (columns 19-21) including iodosulfuron (col 19, lines 45-47) and thifensulfuron (col 21, line 36), in combination with safeners (columns 27-28), hydrocarbon solvents (column 15), and wetting agents such as sulfosuccinic acid esters (col 16, lines 20-25). Wurtz et al US 2002/0016263 teach liquid formulations, i.e., emulsion concentrates (para 12) comprising ALS inhibiting herbicides such as the

sulfonamides and sulfonylureas (para 69-120) and polycarboxylic acid derivatives such as sulfosuccinic acid esters (para 44-55). The compositions may further comprise organic solvents and surfactants (para 122-141), and safeners (para 163- 178). Preferred compositions comprise a sodium dialkylsulfosuccinate, one or more sulfonylureas such as iodosulfuron, and a safener such as mefenpyr or isoxadifen (para 181).

Sixl (US 6,479,432) teaches suspension concentrate compositions (abstract) comprising sulfonylurea herbicides (col 3-6), safeners (col 10), organic solvents (col 10-12), emulsifiers (col 12-14), and • other agents (abstract).

One of ordinary skill in the art would be motivated to combine these references in order to take advantage of the formulation advantages of the various adjuvant materials in these patents that all pertain to suspensions of sulfonylurea herbicides.

Thus it would have been prima facie obvious to the ordinary artisan at the time the invention was made to have combined applicants' components in a single herbicidal oil suspension concentrate because the prior art teaches that it was well known in the art to combine the disclosed sulfonylurea herbicides, safeners, and solvents in a suspension concentrate, and because Wurtz et al specifically discloses the utility of adding the sulfosuccinate esters in these compositions.

The experimentation provided in the examples and declaration employ foramsulfuron or iodosulfuron as the sulfonamide herbicide plus Triton GT-7ME as the sulfosuccinate plus rheological additives and dispersants/emulsifiers. The claims are not commensurate in scope with the data provided in the examples and declaration. The

instant claims employ sulfosuccinates and sulfonamide herbicides broadly, whereas the declaration provide unexpected results related to stability and particle size for compositions specifically comprising foramsulfuron or iodosulfuron (sulfonamide herbicides) plus Triton GT-7ME (sulfosuccinate). The compositions in the declarations and examples also contain rheological additives and dispersants/emulsifiers. Therefore undue experimentation would be required to determine stability and particle size data for other claimed compositions not containing foramsulfuron or iodosulfuron as the sulfonamide herbicide plus Triton GT-7ME as the sulfosuccinate plus rheological additives and dispersants/emulsifiers in order to support the broad limitation to sulfonamide herbicide and sulfosuccinate in the instant claims.

*Response to Applicants' argument*

The Applicants argue that it is not required that every species encompassed by a claim must be disclosed or exemplified, i.e. not all formulations within the scope of the claims need to be exemplified. In re Angstadt, 537 F.2d 498 (CCPA 1976). Applicants recite In re Vaeck, 947 F.2d 488, 489 & n.23 (Fed. Cir. 1991) to iterate that the standard for enablement is "to teach those of ordinary skill how to make and use the invention as broadly claimed." Applicants provide sufficient description and illustrative examples in the specification and declaration to enable an artisan in the field to make and use the invention as claimed without experimentation. The Examiner argues that the independent claims are far broader in scope than the Examples. The example compositions in the declarations and specification contain rheological additives and

dispersants/emulsifiers; such components are not required or recited in the independent claims. For this reason the Examiner argues that not even one of the independent claims is commensurate in scope with the working examples disclosed in the specification and declaration. The scope of claims is far boarder than the examples in the specification and declaration. The Examiner agrees that the instant specification teach one of ordinary skill in the art how to make and use the invention as broadly claimed. However, the Examiner maintains that the references cited in the 112 rejection make the board claims obvious, i.e. the combination of references makes obvious the board claims drawn to an invention comprising a sulfonamide herbicide in suspension, safener, organic solvent and sulfosuccinate. The examples in the specification and declaration yield unexpected results. However, the claims are not commensurate in scope with the examples.

The Applicants argue the Examiner's conclusion that undue experimentation would be required for claimed compositions comprising sulfonamides other than foramsulfuron or iodosulfuron is not understood since the specification at page 93 lines 20-27 discloses that suspension concentrates have excellent physical and chemical properties. In addition the declaration in Examples 3 and 4 and Table 3 disclose that the sulfonamide: foramsulfuron, mesosulfuron, ethoxysulfuron, propoxysulfuron, flucarbazone, compound A21.1 or thifensulfuron all show good chemical and physical stability during storage at 40 degree C for eight weeks. The Examiner argues that no where in the specification or declaration are there actual test results for foramsulfuron, mesosulfuron, ethoxysulfuron, propoxysulfuron, flucarbazone, compound A21.1 or

thifensulfuron regarding chemical and physical stability at 40 degrees C for eight weeks. The Examiner argues that Applicants' make a mere statement about the stability of foramsulfuron, mesosulfuron, ethoxysulfuron, propoxysulfuron, flucarbazone, compound A21.1 or thifensulfuron without the support of data.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-16 remain rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Schnabel et al (US 6,693,063), Wurtz et al (US 2002/0016263), and Sixl (US 6,479,432). Schnabel et al teach emulsifiable concentrates (column 10) comprising ALS inhibitors such as sulfonylurea herbicides (columns 19-21) including iodosulfuron (col 19, lines 45-47) and thifensulfuron (col 21, line 36), in combination with safeners (columns 27-28), hydrocarbon solvents (column 15), and wetting agents such as sulfosuccinic acid esters (col 16, lines 20-25).

Wurtz et al teach liquid formulations, i.e., emulsion concentrates (para 12) comprising ALS inhibiting herbicides such as the sulfonamides and sulfonylureas (para 69-120) and polycarboxylic acid derivatives such as sulfosuccinic acid esters (para 44-55). The compositions may further comprise organic solvents

and surfactants (para 122-141), and safeners (para 163- 178). Preferred compositions comprise a sodium dialkylsulfosuccinate, one or more sulfonylureas such as iodosulfuron, and a safener such as mefenpyr or isoxadifen (para 181).

Sixl teaches suspension concentrate compositions (abstract) comprising sulfonylurea herbicides (col 3-6), safeners (col 10), organic solvents (col 10-12), emulsifiers (col 12-14), and • other agents (abstract).

One of ordinary skill in the art would be motivated to combine these references in order to take advantage of the formulation advantages of the various adjuvant materials in these patents that all pertain to suspensions of sulfonylurea herbicides.

Thus it would have been prima facie obvious to the ordinary artisan at the time the invention was made to have combined applicants' components in a single herbicidal oil suspension concentrate because the prior art teaches that it was well known in the art to combine the disclosed sulfonylurea herbicides, safeners, and solvents in a suspension concentrate, and because Wurtz et al specifically discloses the utility of adding the sulfosuccinate esters in these compositions.

No unobvious or unexpected results are noted; no claim is allowed.

*Response to Applicants' argument*

The Applicants argue that crystal formation (Ostwald ripening) by actives in liquid suspension concentrates was an art-recognized problem as shown in Exhibit B with Applicants' response filed 07/3/08. The Applicants further argue that this problem would not be obtained from the combination of the teaching for a suspension concentrate



formulation (Sixl) with the teaching for emulsion concentrate formulations (Schnabel et al. and Wurtz et al.). All three references are silent on the need to reduce the formation of crystals consisting of the active compound. The Applicants further argue that Wurtz et al. explains the effect of chemical stabilization and solubilization of an active ingredient in an organic liquid by sulfosuccinates to form an emulsion concentrate. In the case of a dispersion of solid particles in an oil suspension concentrate, this increase in solubility should lead to Ostwald ripening. Applicants state that this is not the case for sulfosuccinates and the active ingredients, which are dispersed in an organic liquid according to the instant invention, because the claimed oil suspension concentrates show no sedimentation.

The Examiner argues that the Applicants' claims make no mention of enhancing physical stability or reducing crystal formation. The Examiner argues that the combination of references does suggest the instant invention. Note, Wurtz et al.'s preferred composition contains sulfosuccinic acid plus organic solvent. Wurtz et al. specifically teach a composition comprising dialkyl sulfosuccinate sodium, iodosulfuron plus mefenpyr or isoxadifen in an organic solvent (para 181). Wurtz et al.'s composition reads on instant composition and makes the instant combination of ingredients obvious. Therefore, both Wurtz et al.'s composition and instant composition should yield the same result in terms of chemical and physical properties with respect to Ostwald ripening. The instant claims are drawn to oil suspensions, whereas Wurtz et al. teach oil in water emulsions. The Exhibit B filed by the Applicants on 7/3/08 discloses that an oil based suspension equates to an oil in water emulsion and suspension concentrates.

For this reason, Wurtz et al.'s oil in water emulsion concentrates suggest the instant oil based suspension concentrates. Although Applicants state that their invention is more stable or contain less crystals than Wurtz et al.'s invention, the claims make no mention of such limitations regarding stability or crystal formation.

Applicants' argue that 1) some suggestion or motivation must be stated in the references to modify or combine them 2) a reasonable expectation of success must be expected from the combination of references 3) the prior art must teach all the claim limitations, 4) Schnabel et al and Wurtz et al disclose different types of formulations than the claimed oil suspension concentrates. Schnabel et al mentions that the herbicidal compositions can comprise hydroxybenzonitriles as well as wetting agents, and Schnabel's composition can be formulated in numerous ways, including suspension concentrates. However, Schnabel et al only exemplifies a water-soluble concentrate. The wetting agents are disclosed as formulation auxiliaries for aqueous phase dispersions in Schnabel. Exhibits A and B define oil dispersion and oil-based suspension and explains that water immiscible fluid is required to an "oil". In fact, in the instant claims, the water immiscible fluid is an organic solvent. Schnabel does not teach that sulfosuccinates are for the stabilization of sulfonamides as instantly claimed, 5) Schnabel et al discloses composition that can comprise sulfosuccinic acid esters which are auxiliary agents for aqueous dispersions, 6) Wurtz et al discloses liquid formulation comprising sulfosuccinates, 7) Sixl discloses suspension concentrates comprising sulfonylureas in suspended form, 8) none of the references suggest the claimed oil suspension concentrates, 9) the declarations show that presence of Triton GT-7ME

(which contains a sulfosuccinate) prevents crystal formation and large particle size in the composition in comparison of the composition minus Triton GT-7ME 10) Schnabel and Sixl and Wurtz are silent to the need to reduce the formation of crystals consisting of the active compound.

The Examiner argues that all the references cited in the 103(a) rejection are in the herbicide art. Therefore, it would have been expected that their combination would have yielded a composition that would have successfully function as a herbicide. It is obvious to try combining references having the same utility. The combined art yields an invention meeting all instantly claimed limitations comprising sulfonamides, safeners, organic solvents and sulfosuccinates. The organic solvent taught in all the references cited meet the claim limitation of the invention comprising a water immiscible solvent. It is also important to note that the prior art does not have to exemplify all possible disclosed scenarios to render claims obvious. The prior art suggests the combination of above named ingredients instantly claimed. This renders the instant invention obvious. While Schnabel specifically mentions compositions that may contain wetting agent for an aqueous phase and hydroxybenzonitrile herbicides, it is important to note wetting agents are not required in Schnabel's composition. With respect to stabilization by sulfosuccinate, the instant claims do not recite a stability limitation in reference to the claimed invention. The claims do not recite a limitation related to the stability in manufacturing, storage and handling and application of the instant composition. In addition, the instant claims employ the "comprising" language which allows for the inclusion of both wetting agents and hydroxybenzonitrile. With respect to the

declarations, the claims are not commensurate in scope with the instant claims. The declaration provides results for compositions comprising the instant claimed ingredients, i.e. compositions comprising foramsulfuron or iodosulfuron plus rheological additives and dispersants/emulsifiers. The compositions in the declaration comprising foramsulfuron or iodosulfuron rheological additives plus dispersants/emulsifiers plus Triton GT-7ME show unexpected results over the same compositions minus Triton GT-7ME. However, claims are not drawn to such a composition wherein foramsulfuron or iodosulfuron plus rheological additives plus dispersants/emulsifiers plus Triton GT-7ME are present. It is important to note that the declarations provide unexpected results for the composition wherein the herbicides are foramsulfuron or iodosulfuron. However, the claims are to all sulfonamide herbicides. The claim to all sulfonamide herbicides is not commensurate in scope with the only to sulfonamides provided in the declarations. Also, in a claim to a composition, a statement to the utility of its components has no patentable significance. For these reasons, the rejection on record is maintained.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Telephonic Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALTON N. PRYOR whose telephone number is (571)272-0621. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alton N. Pryor/  
Primary Examiner, Art Unit 1616